

Notice of Allowability

Application No.

09/715,556

Examiner

Jason M Perilla

Applicant(s)

LUFF, GWILYM FRANCIS

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the request for continued examination filed November 22, 2004.
2. ☒ The allowed claim(s) is/are claims 1, 3-15, 17, 18 and 20-31 renumbered respectively as claims 1-28.
3. ☒ The drawings filed on 17 November 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20050214</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>6/04 11/04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas B. Haverstock on February 16, 2005.

The application has been amended as follows:

The following version of claim 1 replaces all versions of the claim in the file in their entirety.

1. In a wireless receiver, a circuit for receiving an input signal from a transmitter, the input signal including a preamble portion, a unique word portion and a data portion, the circuit comprising:
 - a. a preamble detector configured to receive the input signal and to provide a preamble signal where the preamble signal is active during the preamble portion of the input signal and inactive during all portions of the input signal other than the preamble portion;
 - b. a DC level set circuit configured to receive the preamble signal, the input signal including the preamble portion, the unique word portion and the

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data portion and to receive a control signal and to provide a level set signal; and

c. a data slicer circuit coupled with the DC level set circuit to receive the level set signal and to provide ~~the an~~ output signal; and wherein the preamble detector comprises:

d. ~~a delay line for receiving the input signal and for providing a delay signal to the DC level set circuit~~

i. an AC coupling for removing a direct current offset from the input signal;

ii. a first comparator for recovering a digital output from the AC coupling;

iii. a four bit delay line for detecting and for holding the preamble portion of the input signal;

iv. a lower block coupled with both the four bit delay line and the first comparator for providing the preamble signal when the four bit delay line detects the preamble portion of the input signal; and

v. a delay element for receiving the input signal and for providing a delay signal to the DC level set circuit.

Claim 2 is CANCELED

Regarding claim 3, in line 1, "of Claim 2" is replaced by --of Claim 1--.

Regarding claim 4, in line 1, "of Claim 2" is replaced by --of Claim 1--.

Regarding claim 14, in line 2, "the scaled feedback" is replaced by --a scaled feedback--.

The following version of claim 15 replaces all versions of the claim in the file in their entirety.

15. A method of receiving an input signal and a control signal and providing an output signal, the input signal including a preamble portion, a unique word portion and a data portion, the method comprising the steps of:
- a. receiving the input signal with a preamble detector;
 - b. providing a preamble signal where the preamble signal is active during the preamble portion of the input signal and inactive during all portions of the input signal other than the preamble portion;
 - c. receiving the preamble signal from the preamble detector, the input signal, and the control signal with a DC level set circuit;
 - d. providing a level set signal with the DC level set circuit;
 - e. receiving the level set signal from the DC level set circuit with a data slicer circuit, and
 - f. providing the output signal with the data slicer circuit, wherein the preamble detector provides the preamble signal to the DC level setting circuit when a delay line detects the preamble portion of the input signal according to the steps of:

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- i. AC coupling the input signal;
- ii. comparing a digital output from the AC coupling;
- iii. holding the preamble portion of the input signal in a four bit delay line;
- iv. providing the preamble signal when the four bit delay line detects the preamble portion of the input signal;
- v. providing a delay signal to the DC level set circuit.

Claim 16 is CANCELLED.

The following version of claim 18 replaces all versions of the claim in the file in their entirety.

18. A circuit for receiving an input signal and a control signal and providing an output signal, the input signal including a preamble portion, a unique word portion and a data portion, the circuit comprising:
- a. means for receiving the input signal with a preamble detector;
 - b. means for providing a preamble signal where the preamble signal is active during the preamble portion of the input signal and inactive during all portions of the input signal other than the preamble portion;
 - c. means for receiving the preamble signal from the preamble detector, the input signal and the control signal with a DC level set circuit;

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- d. means for providing a level set signal with the DC level set circuit;
- e. means for receiving the level set signal from the DC level set circuit with a data slicer circuit; and
- f. means for providing the output signal with the data slicer circuit; and
wherein the preamble detector comprises:
- ~~g. means for detecting and holding the preamble portion of the input with a~~
delay line
 - i. an AC coupling for removing a direct current offset from the input signal;
 - ii. a first comparator for recovering a digital output from the AC coupling;
 - iii. a four bit delay line for detecting and for holding the preamble portion of the input signal;
 - iv. a lower block coupled with both the four bit delay line and the first comparator for providing the preamble signal when the four bit delay line detects the preamble portion of the input signal; and
 - v. a delay element for receiving the input signal and for providing a delay signal output to the DC level set circuit.

Claim 19 is CANCELLED.

Regarding claim 20, in line 1, "of Claim 19" is replaced by –of Claim 18—and, "the active" is replaced by –an active--.

Regarding claim 21, in line 1, "of Claim 19" is replaced by --of Claim 18--.

Regarding claim 31, in line 2, "the scaled feedback" is replaced by --a scaled feedback--.

Claims 1, 3-15, 17, 18, and 20-31 are renumbered as claims 1-28, and the claim dependency is renumbered accordingly.

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Perilla whose telephone number is (571) 272-3055. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Jason M. Perilla
February 14, 2005

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